



Mechatronics

AAS (60 SCH*)

*Semester Credit Hour

5/2024

First Semester - 15 SCH

CETT 1409 - DC-AC Circuits
ELMT 2333 - Industrial Electronics
ELPT 1221 - Introduction to Electrical Safety and Tools
MATH 1332 - Contemporary Math
PSYC 1300 - Learning Framework

Second Semester - 15 SCH

ENTC 1349 - Reliability and Maintainability
HYDR 1345 - Hydraulics and Pneumatics
INTC 1341 - Principles of Automatic Control
RBTC 1301 - Programmable Logic Controllers
RBTC 1351 - Robotic Mechanisms

Third Semester - 15 SCH

COSC 1301 - Introduction to Computing
ELMT 2337 - Electronic Troubleshooting, Service and Repair
ELPT 1351 - Electrical Machines
ELPT 2319 - Programmable Logic Controllers I
RBTC 1305 - Robotic Fundamentals

Fourth Semester - 15 SCH

ELPT 2355 - Programmable Logic Controllers II
ENGL 1301 - Composition I
CETT 1349 - Digital Systems
INMT 2345 - Industrial Troubleshooting
DRAM 1301 - Theater Appreciation

Marketable Skills

- Acquire and evaluate information
- Interpret and communicate information
- Use computer software to maintain production
- Problem-solving
- OSHA - General Industries
- Maintain digital and solid state devices
- Repair and maintain fluid and pneumatic systems
- Monitor mechanical and electronic devices, circuits, and systems used in automated manufacturing
- Electronic system maintenance, troubleshooting and repair
- Use programmable logic controllers
- Installation, maintenance and repair of automatic control systems
- Install, maintain and repair robotic mechanisms
- Installation, maintenance and repair of four bar linkages, cams, gears and gear trains.

Program Outcomes

Maintain equipment in an industrial setting including the use of Programmable Logic Controllers, Variable Frequency Drives, hydraulic and pneumatic systems, communications between systems and mechanical systems.

High School Endorsements

Business and Industry

Additional Education Opportunities

Bachelor of Arts in Applied Science

Expected Salary

Texas wage data: workers on average earn \$117,650; 10% of workers earn \$64,300 or less; 10% of workers earn \$178,120 or more.

Career Opportunities

Electronics Technician; Electromechanical Technician; Maintenance Technician-Electrical and Mechanical; Industrial Electrician; Industrial Mechanic; Robotics Technician; Wind Turbine Technician; Field Service Technician; Manufacturing Systems Technician; Automation Technician; Power Plant Technician; Fluid Power Technician; Equipment Technician; Power Tool Repair Technician; Plant Engineering Systems Technician; Engineering Technician.